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YOUTUBE LECTURES AND ACADEMIC PERFORMANCE: EVIDENCE FROM UNDERGRADUATE STUDENTS AT BAYERO UNIVERSITY, KANO

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Abstract
As digital platforms become integral to higher education, YouTube has emerged as a popular supplementary learning resource, offering flexible and accessible instructional content. Despite its growing use by students, limited research has examined its role in academic libraries and its effect on students' academic performance. This study investigates the relationship between accessing YouTube lectures through Bayero University, Kano's e-library, and the academic performance of undergraduate students. A quantitative survey design was employed, with 92 valid responses obtained from 100 questionnaires distributed to e-library users. Data were collected through structured questionnaires and analyzed using descriptive statistics and chi-square tests in SPSS. Results revealed that a majority of students frequently accessed YouTube lectures for academic purposes, with 90.2% affirming that such content enhanced their understanding of complex topics and exam preparation. However, infrastructural barriers, particularly poor internet connectivity (76.1%), were reported as major obstacles to effective utilization. Inferential analysis indicated that there is a statistically significant relationship ($p < 0.05$) between YouTube lecture usage and academic performance, suggesting that greater engagement with educational videos can positively influence students' academic outcomes. The study concludes that YouTube is a valuable supplementary learning tool but requires structured integration and institutional support to maximize its academic potential. Recommendations include upgrading e-library internet facilities, embedding curated YouTube resources into course materials, and offering digital literacy workshops. Further longitudinal research is suggested to assess YouTube's long-term impact on academic achievement.

Keywords: YouTube lectures, academic performance, e-library, digital learning, undergraduate students, Bayero University Kano.

Introduction
In the digital age, educational institutions are integrating technology into their learning systems to improve students' academic experiences. Libraries, which have traditionally been the cornerstone of academic resources, are now embracing digital platforms like YouTube to provide a more diverse range of educational materials. YouTube's role in education has grown significantly, offering videos on a wide range of subjects, often curated by experts, educators, and academic institutions. These videos provide students with the flexibility to learn at their pace, revisit difficult concepts, and access information not readily available in physical textbooks. Bayero University Library has embraced this trend by offering access to YouTube lectures via its e-library system.

However, the role of YouTube lectures within this ecosystem and their impact on students' academic performance remain relatively underexplored. This study aims to examine the relationship between accessing YouTube lectures through the e-library and the academic performance of undergraduates at Bayero University. Understanding this relationship is crucial for optimizing digital resources to support student learning and academic success. YouTube supports multimedia learning and student engagement and is particularly effective at enhancing the educational experience of fully online learners (Buzzetto-More, 2015). The study also aims to identify the challenges students face in accessing and utilizing YouTube lectures and how these may affect their academic performance.

RESEARCH OBJECTIVES

1. To examine the undergraduate students' access to YouTube lectures In Bayero University, Kano library
2. To explore how YouTube lectures are used as a learning tool among undergraduate students in the university library.
3. To identify the challenges faced by the students in using YouTube lectures and their potential impact on academic success in the university library.

HYPOTHESIS

1. H_0^1 There is no significant relationship between the use of YouTube lectures and the academic performance of undergraduate students in Bayero University, Library

Methodology

The study population comprised 120 registered undergraduate users of the Bayero University e-library during the period of the research. From this population, the researcher distributed 100 copies of the questionnaire to students who were present and actively making use of the e-library services at the time of data collection. This approach followed a convenience sampling technique, as respondents were selected based on their availability and willingness to participate rather than through a random selection process. Out of the 100 questionnaires distributed, 92 were duly completed and returned, representing a 92% response rate. Although convenience sampling may limit the generalizability of the findings, it was deemed appropriate, given the focus on actual users of the e-library as the target population.

The questionnaires include closed-ended questions focusing on accessing YouTube lectures and academic performance of undergraduates in Bayero University. Respondents rate their experiences and preferences on a Likert scale (e.g., strongly agree to strongly disagree). The data was analyzed using descriptive statistics (i.e., frequency & percentages) to summarize user responses and e-library usage patterns. This approach ensures an efficient, scalable, and objective means of assessing the e-library's impact and identifying areas for improvement.

LITERATURE REVIEW

YouTube as a Supplementary Learning Tool

Theoretical perspectives such as Mayer's Multimedia Learning Theory (2009) emphasize that students learn more effectively when verbal information is combined with visual representations. YouTube aligns with this principle by offering audiovisual materials that simplify complex concepts, promote engagement, and encourage self-paced learning. For instance, Riady (2022) highlighted how YouTube played a pivotal role in distance learning during the COVID-19 pandemic, bridging gaps in access to knowledge. Similarly, Bal, Kara Aydemir, and Coşkun (2024) argue that university libraries can leverage YouTube by integrating channels into library systems, promoting them through events, and curating

engaging content. These insights resonate with Constructivist Learning Theory**,** which suggests that learners actively construct meaning by interacting with diverse media and resources.YouTube has increasingly been adopted in education as a powerful supplementary learning tool that enhances students' comprehension, motivation, and academic achievement. For example, Rigdel, Dorji, and Rai (2023) conducted a quasi-experimental study among secondary school students in Bhutan and found that those who used YouTube materials in Geography outperformed those taught through traditional methods, with statistically significant improvements in post-test scores ($p < .05$) after a three-week intervention. Similarly, Olivo (2023) examined higher education students in the Philippines and found that learners rated YouTube more effective than traditional texts, scoring its usefulness above 4 out of 5 on average; students reported that the video format helped them grasp complex concepts more quickly. Furthermore, during the COVID-19 pandemic, Lu (2023) observed that YouTube was particularly valuable in engineering mathematics instruction, as it increased engagement, supported visualization of difficult processes, and enhanced interactive problem solving.

YouTube and Academic Performance

A growing body of evidence links YouTube use with improved academic achievement, although findings remain mixed. Studies such as Nissenson et al. (2019) demonstrated that integrating over 600 YouTube-based tutorials into engineering instruction improved students' comprehension of mechanical engineering concepts. Likewise, Mohammed and Ogar (2023) reported significant post-test gains among Nigerian undergraduates taught with YouTube-supported strategies in environmental education. Abd Al Khanaifsawy (2023) further confirmed positive outcomes among Iraqi EFL learners, with short animated YouTube clips enhancing lecture recall. Complementing these results, Yürüm et al. (2022) found that students' detailed video engagement behaviors (pausing, rewatching) correlated with higher test performance, illustrating the role of Cognitive Load Theory, which posits that revisiting instructional content helps manage intrinsic load and improves retention.

However, other studies present a more nuanced picture. Madhavika and Rathnayake (2020) found that undergraduates in Sri Lanka primarily used YouTube for entertainment rather than academic purposes, reducing its effectiveness as a learning tool. Similarly, Zhang et al. (2022) noted that reliance on recorded lectures can reduce motivation and peer interaction, potentially limiting academic benefits. This suggests that while YouTube provides valuable supplementary learning opportunities, its impact on grades may depend on structured integration into curricula and guided use.

Challenges in Utilizing YouTube for Learning

Despite its benefits, YouTube adoption in education is constrained by infrastructural, technological, and psychological barriers. Sharma et al. (2024) identified limited technology access, low computer self-efficacy, and computer anxiety as key obstacles to effective adoption of e-learning platforms, including YouTube. Poor internet connectivity also emerges as a recurring challenge in developing contexts (Usman & Song, 2024), restricting students' ability to access high-quality video content. At a psychological level, lack of motivation or overreliance on passive viewing may reduce the platform's learning benefits (Zhang et al., 2022). These barriers highlight the need for institutional support, improved digital literacy training, and upgraded infrastructure to maximize YouTube's educational potential.

Taken together, the literature indicates that YouTube has strong potential to enhance engagement, comprehension, and retention,

consistent with established learning theories. Yet findings remain inconsistent: while some studies demonstrate measurable academic benefits, others highlight motivational and infrastructural challenges. Moreover, limited attention has been given to how university libraries, as formal academic support systems, integrate YouTube into their digital resource strategies. This gap is particularly relevant in contexts like Bayero University, where e-library systems provide a structured environment for YouTube access. The present study addresses this gap by examining the extent of YouTube usage in the e-library, its relationship with academic performance, and the barriers limiting its effectiveness.

Presentation and Analysis of Data

This part addresses the presentation, analysis, and interpretation of data gathered from the respondents.

Demographic Analysis of the Respondents

The demographic characteristics of the respondents captured from the study area includes, gender distribution, age and faculties of the respondents, were analyzed in this section using the simple descriptive statistical analysis.

Table 1 Demographic Distribution

S/N	Gender	Frequency	Percentages
1	**MALE**	86	93.5%
2	**FEMALE**	6	6.6%
Age			
1	16-20	34	37.0%
2	21-25	48	52.2%
3	26-30	9	9.8%
4	Above 30	1	1.1%
Faculties			
1	Faculty of Engineering	20	21.7%
2	Faculty of Computing	32	34.8%
3	Faculty of Education	17	18.5%
4	Faculty of Social Science	5	5.4%
5	Faculty of Economic And Management Science	8	8.7%
6	Faculty of Agriculture	1	1.1%
7	Faculty of Veterinary Medicine	1	1.1%
8	Faculty of Art & Islamic Studies	3	3.3%
9	Faculty of Earth And Environmental Sciences	2	2.2%
10	Faculty of Law	1	1.1%
11	Faculty of Physical Sciences	1	1.1%

The table showed a diverse demographic distribution of the 92 respondents, with mmajority 86(93%) of the respondents where Male undergraduate students while very few 6(6.6%) where Female Undergraduate students. This indicated that Male students dominated. Followed by the predominant younger age groups 48 (52%) of the respondents are between the age of 21-25, reflecting that younger age student frequently watches youtube lectures in e-library, while 34(37.0%), 16-20 age, however, 9 (9.8%) 26- 30 and 1 (1.1%) 30 and above where the minority. However, 32(34.8%) of the respondents were students from the faculty of Computing, while 20(21.7%) are from faculty of Engineering, 17(18.5%) are from faculty of Education, 8 (8.7%) Faculty of Economic and Management Science, 5 (5.4%) respondents are students from Faculty of Social Science, 3(3.3%) Faculty of Art & Islamic Studies, 2(2.2%) Faculty of Earth and Environmental Sciences,

while respondents from four (4) Faculties i.e. Faculty of Agriculture, Faculty of Veterinary Medicine, Faculty of Law and Faculty of Physical Sciences are the minority with 1(1.1%). Meaning that respondents from the faculty of Computing are the majority students that watch youtube in the E-Library.

The demographic profile of respondents revealed a strong imbalance, with 93.5% male participants and a concentration of students from the Faculty of Computing (34.8%) and Engineering (21.7%). This suggests that the findings primarily reflect the experiences of male students in STEM-related disciplines, limiting the generalizability of the results to the wider undergraduate population. Female students (6.5%) and those from non-STEM faculties were underrepresented, which restricts insights into how YouTube lectures in the e-library may influence their academic performance. This limitation may be linked to usage patterns of the e-library itself, which is more heavily patronized by STEM students.

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Research Objective 1: To examine the undergraduate students' Extent of access to YouTube lectures In Bayero University, Kano library.

Respondents were asked to indicate their Extent of Access to and Usage of YouTube Lectures.

Table 2 present the respondents responses.

Extent of Access to and Usage of YouTube Lectures

S/N	Statement on the Extent of Access to and Usage of YouTube Lectures	SA Freq/perc	A Freq/perc	N Freq/perc	D Freq/perc	SD Freq/perc
1	I frequently access YouTube lectures in the e-library.	41(44.6%)	29(31.5%)	7(7.6%)	11(12.0%)	4 (4.3%)
2	I spend significant time watching YouTube lectures for academic purposes.	42(45.7%)	30(32.6%)	12(13.0%)	5(5.4%)	3(3.3%)
3	The content I find on YouTube is relevant to my information needs.	50(54.3%)	28.3%)	10(10.9%)	3(3.3%)	3(3.3%)
4	I prefer using YouTube lectures over other e-library resources for learning.	29(31.5%)	26(28.3%)	24(26.1%)	8(8.7%)	5(5.4%)
5	The e-library facilities support seamless access to YouTube lectures.	26(28.3%)	40(43.5%)	17(18.5%)	7(7.6%)	2(2.2%)
6	I use YouTube lectures as a primary learning resource for my studies.	29(31.5%)	28(30.4%)	17(18.5%)	13(14.1%)	5(5.4%)
7	I use YouTube lectures to supplement my class lectures.	45(48.9%)	28(30.4%)	7(7.6%)	8(8.7%)	4(4.3%)
8	I prefer watching YouTube lectures over reading textbooks for academic learning.	27(29.3%)	22(2t3.9%)	23(25.0%)	12(13.0%)	8(8.7%)
9	The e-library provides sufficient internet connectivity for accessing YouTube lectures.	27(29.3%)	32(34.8%)	20(21.7%)	10(10.9%)	3(3.3%)
10	I watch YouTube lectures in the e-library on a daily basis.	12(13.0%)	28(30.4%)	28(30.4%)	15(16.3%)	9(9.8%)
11	I watch YouTube lectures in the e-library on a weekly basis.	27(29.3%)	21(22.8%)	27(29.3%)	12(13.0%)	5(5.4%)
12	The availability of YouTube lectures in the e-library has encouraged me to study more.	45(48.9)	28(30.4%)	11(12.0%)	5(5.4%)	3(3.3%)
13	I use YouTube lectures mainly for revising topics covered in class.	40(43.5%)	25(27.2%)	17(18.5%)	4(4.3%)	6(6.5%)
14	I access YouTube lectures in the e-library for	31(33.7%)	33(35.9%)	16(17.4%)	7(7.6%)	5(5.4%)

	exam preparation.					
15	**I rely on YouTube lectures for self-paced learning.**	**30(32.6%)**	**24(26.1%)**	**16(17.4%)**	**9(9.8%)**	**13(14.1%)**

Table 2 revealed that 41 (44.6%) of respondents strongly agree that they frequently access YouTube lectures in the e-library, indicating high engagement with this resource. Additionally, 29 (31.5%) agree with the statement, reinforcing that YouTube lectures are a commonly used tool in the e-library. A small percentage remain neutral 7(7.6%), suggesting they may not have a strong opinion or may use YouTube lectures occasionally. In contrast, 11 (12.0%) disagree, implying they do not frequently access YouTube lectures, possibly preferring other resources, while a very small fraction 4(4.3%) strongly disagree, indicating minimal or no usage. Building on this, the results reveal that a strong majority of respondents spend significant time watching YouTube lectures for academic purposes, with 42 (45.7%) strongly agreeing and 30 (32.6%) agreeing. A smaller but still notable portion 12(13.0%) remained neutral, while only 5 (5.4%) disagreed and 3(3.3%) strongly disagreed, indicating a small minority do not find YouTube lectures essential for their academic work. In a similar vein, the survey results demonstrate that a substantial majority of respondents find the content on YouTube relevant to their information needs. Specifically, 50 (54.3%) strongly agree and 26 (28.3%) agree, totaling 82.6% who view YouTube as a valuable source of academic information. Meanwhile, 10 (10.9%) remained neutral, with only 3 (3.3%) each disagreeing or strongly disagreeing, possibly due to encountering irrelevant or low-quality content. Furthermore, the survey reveals that while a majority of respondents (59.8% combined, with 29 or 31.5% strongly agreeing and 26 or 28.3% agreeing) prefer using YouTube lectures over other e-library resources for learning, a significant 24 (26.1%) remain neutral. This suggests that many students may use YouTube alongside other resources depending on the learning context. However, the 14.1% who disagree or strongly disagree highlight the continued relevance of traditional resources. Moreover, the survey indicates that a majority of respondents 26(28.3% strongly agreeing and 40 or 43.5% agreeing) believe their e-library facilities effectively support seamless access to YouTube lectures. While 17 (18.5%) remain neutral, a minority 7(7.6%) disagreeing and 2(2.2%) strongly disagreeing) highlight some access or technical challenges. In addition, the survey reveals that a significant portion of respondents 29(31.5%) strongly agree and 28(30.4%) agree) rely on YouTube lectures as a primary learning resource. However, 28 (30.4%) remain neutral, and 13 (14.1%) and 5 (5.4%) disagree or strongly disagree, reflecting varied preferences in learning tools. Similarly, the survey shows that a large majority 45(48.9%) strongly agree and 28(30.4%) agree) use YouTube lectures to supplement their class lectures, highlighting its widespread adoption as a complementary resource. Only a small percentage of respondents disagree 8(8.7%) or strongly disagree 4(4.3%), indicating general acceptance of YouTube as a study aid. On another note, students showed divided preferences regarding YouTube versus textbooks. While 27 (29.3%) strongly agree and 22 (23.9%) agree that they prefer YouTube over textbooks, 23 (25%) remain neutral. Meanwhile, 12 (13.0%) and 8 (8.7%) disagree or strongly disagree, indicating the sustained importance of traditional learning materials.

Additionally, a strong majority (27 or 29.3% strongly agree and 32 or 34.8% agree) believe that their e-library provides sufficient internet connectivity for accessing YouTube lectures. However, 20 (21.7%) remain neutral, and a minority 10 (10.9%) and 3(3.3%) report connectivity challenges. In terms of frequency, 12 (13%) strongly agree and 28 (30.4%) agree

they use YouTube lectures daily. Meanwhile, an equal proportion 28(30.4%) are neutral, and a notable minority 15(16.3%) and 9(9.8%) do not use them daily, highlighting diverse usage patterns. Looking at weekly usage, 27 (29.3%) strongly agree and 21 (22.8%) agree they access YouTube lectures weekly. A similar number 27(29.3%) are neutral, while 12 (13%) disagree and 5 (5.4%) strongly disagree, reflecting mixed frequencies of engagement.

Furthermore, the impact of YouTube is evident, with 45(48.9%) strongly agreeing and 28 (30.4%) agreeing that its availability in the e-library motivates them to study more. A small minority 5(5.4%) and 3(3.3%) disagree, and 11 (12%) remain neutral, suggesting overall positive influence. When it comes to revision, 40 (43.5%) strongly agree and 25(27.2%) agree that they primarily use YouTube lectures to revise class topics. Meanwhile, 17 (18.5%) are neutral, and a minority 4(4.3%) and 6(6.5%) prefer other methods. Regarding exam preparation, 31(33.7%) strongly agree and 33 (35.9%) agree that they actively use YouTube for this purpose. While 16(17.4%) remain neutral, 7(7.6%) and 5(5.4%) disagree or strongly disagree, reflecting different preparation styles. Lastly, 30(32.6%) strongly agree and 24(26.1%) agree that they use YouTube for self-paced learning, showing its importance as a flexible tool. However, 16(17.4%) remain neutral, and a notable minority 9(9.8%) and 13(14.1%) disagree or strongly disagree, suggesting a need to accommodate different learning preferences.

Research Objective 2: To analyze the relationship between the Use of YouTube and the academic performance of undergraduate students in the university library

Respondents were asked to indicate their Use of YouTube lectures and academic performance.

Table 3 present the respondents responses.

Use of YouTube lectures and academic performance

S/N	Statement on the Use of YouTube lectures and academic performance	SA Freq/perc	A Freq/perc	N Freq/perc	D Freq/perc	SD Freq/perc
1	Using YouTube lectures has positively impacted my academic performance.	47(51.1%)	36(39.1)	2(2.2%)	1(1.1%)	6(6.6%)
2	I have noticed improvements in my grades since I started using YouTube lectures.	26(28.3%)	42(45.7%)	16(17.4%)	3(3.3%)	5(5.4%)
3	YouTube lectures help me understand difficult concepts better than traditional resources.	43(46.7%)	23(25.0%)	18(19%)	5(5.4%)	3(3.3%)
4	I find that regular use of YouTube lectures positively increases my Learning.	44(47.8%)	34(37.0%)	4(4.3%)	7(7.6%)	3(3.3%)
5	Watching YouTube lectures helps me prepare better for exams and assignments.	38(41.3%)	42(45.7%)	6(6.5%)	2(2.2%)	4(4.3%)
6	The frequency of accessing YouTube lectures correlates with my academic success.	21(22.8%)	50(54.3%)	15(16.3%)	2(2.2%)	4(4.3%)
7	Watching YouTube lectures helps me retain information better than reading alone.	41(44.6%)	30(32.6)	15(16.3%)	2(2.2%)	4(4.3%)
8	The use of YouTube lectures has helped me bridge gaps in my classroom learning.	35(38.0%)	45(48.9)	6(6.5%)	2(2.2%)	4(4.3%)
9	Watching YouTube lectures allows me to keep up with my coursework even when I miss classes.	38(41.3%)	32(34.8%)	14(15.2%)	4(4.3%)	4(4.3%)
10	I find it easier to recall information in exams when I have learned it through YouTube lectures.	33(35.9%)	34(37.0%)	15(16.3%)	6(6.5%)	4(4.3%)
11	Watching YouTube lectures before lectures or exams gives me more	38(41.3%)	38(41.3%)	7(7.6%)	5(5.4%)	4(4.3%)

confidence in my studies.

The data indicates that the majority of respondents believe using YouTube lectures has positively impacted their academic performance, with 47(51.1%) strongly agreeing and 36(39.1%) agreeing, totaling 90.2% in favor. Only a small minority expressed neutral 2(2.2%), disagreeing 1(1.1%), or strongly disagreeing 6(6.6%) views, suggesting that YouTube lectures are widely perceived as beneficial for academic success. The majority of positive responses indicated that YouTube lectures significantly improve academic performance, with minimal opposition suggesting rare drawbacks or dissatisfaction. However, the data reveals that a significant majority of respondents 26(28.3%) who strongly agree and 42(45.7%) who agree report improved grades after using YouTube lectures, highlighting the platform's effectiveness as a supplementary learning tool. However, 16(17.4%) remain neutral, possibly indicating no significant change or mixed experiences, while a small minority 3(3.3%) disagree and 5(5.4%) strongly disagree suggesting that YouTube lectures may not benefit all students equally. The strong positive skew supports the idea that YouTube is a valuable academic resource for most, though individual outcomes may vary based on learning styles or content relevance. The survey results reveal that a strong majority of respondents 43(46.7%) who strongly agree and 23(25.0%) who agree to find YouTube lectures more effective than traditional resources for understanding difficult concepts. While 18(19.6%) remain neutral, only a small minority 5(5.4%) disagree and 3(3.3%) strongly disagree. This indicates that YouTube has become a preferred learning tool for most students, likely due to its accessible, visual explanations and on-demand availability. The data shows that a majority of respondents 44(47.8%) strongly agree and 34(37.0%) agree that regular use of YouTube lectures positively increases their learning, indicating a strong belief in its educational benefits. Only a small fraction remained neutral 4(4.3%) and 7(7.6%) expressed disagreement and 3(3.3%) Strongly Disagree. This suggests that YouTube is widely viewed as an effective platform for enhancing learning outcomes through consistent use, further supporting its integration into academic routines as a complementary learning tool. The data reveals that a substantial majority of respondents 38(41.3%) strongly agree were 42(45.7%) agree that watching YouTube lectures helps them prepare better for exams and assignments. A small portion (6.5%) remained neutral, while only 2(2.2%) and 4(4.3%) disagree and strongly disagree they did not find YouTube helpful in this context. This indicates a strong perception that YouTube lectures are valuable for academic preparation, reinforcing their role as an effective supplementary resource for studying and completing coursework. The data indicates that 21(22.8%) of respondents strongly agree that the frequency of accessing YouTube lectures correlates with their academic success, while a larger portion, 50(54.3%) agree with the statement. Additionally, 15(16.3%) of respondents hold a neutral view, neither agreeing nor disagreeing. On the other hand, 2(2.2%) disagree, and 4(4.3%) strongly disagree with the statement. This distribution suggests that while the majority perceive a positive correlation between YouTube usage and academic performance, a small segment remains uncertain or disagrees with this view. The data from the survey results indicated that a strong majority of respondents 41(44.6%) who strongly agree and 30(32.6%) who agree that find YouTube lectures more effective for information retention compared to reading alone. This significant preference for audiovisual learning over traditional text-based methods likely reflects the cognitive benefits of multimodal content delivery. While 15(16.3%) remain neutral, potentially indicating variability based on

subject matter or learning styles, only a small fraction 2(2.2%)(6.5%) disagree and 4(4.3%) Strongly Disagree, suggesting that video-based learning offers clear mnemonic advantages for most students. These findings highlight YouTube's effectiveness as a memory-enhancing educational tool is supported by data, suggesting that optimal learning strategies may require a combination of various approaches

The survey results demonstrate that YouTube lectures serve as an effective supplementary learning tool for most students, with 35(38.0%) strongly agreeing and 45(48.9%) agreeing that they help bridge gaps in classroom learning, indicating a strong positive perception of their utility. A small minority remain neutral 6(6.5%) while 2(2.2%) disagree, and 4(4.3%) strongly disagree, suggesting that while YouTube lectures are widely beneficial, their effectiveness may vary depending on individual learning preferences, subject matter, or video quality. These findings support the integration of YouTube as a supplemental resource.

The survey results reveal that 38(41.3%) of respondents strongly agree and 32(34.8%) agree that YouTube lectures help them keep up with missed classes, indicating that a significant majority that find youtube lectures valuable for maintaining coursework continuity. However, 14(15.2%) remain neutral, suggesting they may not consistently rely on or benefit from these resources, while 4(4.3%) disagree and another 4(4.3%) strongly disagree, highlighting that a small but notable minority do not find YouTube lectures effective for this purpose. This distribution underscores YouTube's role as a widely accessible tool for catching up on missed material, though its utility varies among students, potentially due to differences in video quality, subject matter, or individual learning preferences. The survey responses reveal a strong positive perception of YouTube lectures as a memory-enhancing learning tool, with 33(35.9%) of respondents strongly agreeing and 34(37.0%) agreeing that they find it easier to recall information in exams when they have learned it through YouTube lectures. This combined 72.9% majority suggests YouTube's format likely combining visual, auditory, and often demonstrative elements - effectively reinforces memory retention for most students. However, 15(16.3%) remain neutral, possibly indicating variable effectiveness across different subjects or learning styles, while 6(6.5%) disagree and 4(4.3%) strongly disagree. The results support YouTube's growing role in exam preparation strategies while suggesting its benefits aren't universal across all educational scenarios.The survey results demonstrate that YouTube lectures serve as a significant confidence-building tool for students, with 38(41.3%) strongly agreeing and another 38(41.3%) agreeing that Watching YouTube lectures before lectures or exams gives them more confidence in my studies. Indicating an overwhelming 82.6% majority find them psychologically beneficial. Only 7(7.6%) remain neutral, while 5(5.4%) disagree and 4(4.3%) strongly disagree. The overwhelming majority (82.6%) of students' report increased academic confidence from pre-lecture or pre-exam YouTube viewing, demonstrating its dual role as both an information source and psychological preparation tool.

Research Objective 3: To identify the challenges faced by the students in using YouTube lectures and their potential impact on academic success in the university library.

Respondents were asked to indicate their Use of YouTube lectures and academic performance.

Table 4 present the respondents' responses.

Challenges in Accessing and Using YouTube Lectures

S/N	Challenges	SA (5)	A (4)	N (3)	D (2)	SD (1)
1	Poor internet connectivity affects my ability to access YouTube lectures.	48(52.2%)	22(23.9%)	13(14.1%)	6(6.5%)	3(3.3%)
2	I lack sufficient knowledge about using YouTube effectively for academic purposes	6(6.5%)	9(9.8%)	14(15.2%)	37(40.2%)	26(28.3%)

3	**Limited time prevents me from fully utilizing YouTube lectures in the e-library.**	**26(28.3%)**	**21(22.8%)**	**23(25.0%)**	**14(15.2%)**	**8(8.7%)**
4	**The available content on YouTube does not always match my Information needs.**	**9(9.8%)**	**12(13.0%)**	**15(16.3%)**	**28(30.4%)**	**28(30.4%)**

The findings reveal that poor internet connectivity significantly hinders access to YouTube lectures for a majority of students, with 48(52.2%) strongly agreeing and 22(23.9%) agreeing that it poses a substantial barrier. 13(14.1%) remain Neutral, while only 6(6.5%) disagree and 3(3.3%) strongly disagree) report minimal connectivity issues, highlighting a critical digital divide in educational resource accessibility.

The data indicates that 15(16.3%) of respondents agree and strongly agree that they lack sufficient knowledge about using YouTube effectively for academic purposes, while 14(15.2%) remain neutral. However, 40.2% disagree and 28.3% strongly disagree, suggesting most students feel confident in using YouTube for academic benefits. A notable minority may benefit from guidance or training on how to use YouTube more effectively. Overall, most students feel confident in navigating YouTube for academic benefits.

The data indicates that 26(28.3%) of respondents strongly agree and 21(22.8%) agree that limited time is a significant barrier for many students when using YouTube lectures in the e-library. The remaining 23(25.0%) remain neutral, possibly reflecting mixed experiences or uncertainty. However, 14(15.2%) disagree and 8(8.7%) strongly disagree, suggesting that time constraints may not be a major issue for some students. The data shows that 9(9.8%) of respondents strongly agree that YouTube content doesn't always match their information needs, while 12(13.0%) agree, suggesting some students face content gaps. 15(16.3%) are neutral, suggesting uncertainty or mixed experiences. However, 28(30.4%) disagree and strongly disagree, suggesting that while most students find suitable content, a minority still experiences limitations in content relevance or specificity.

Inferential Analysis

H_0[1] There is no significant relationship between the use of YouTube lectures and the academic performance of undergraduate students in Bayero University, Library. The result of the test is presented in table 5.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1017.525[a]	726	.000
Likelihood Ratio	389.132	726	1.000
Linear-by-Linear Association	59.317	1	.000
N of Valid Cases	92		

a. 782 cells (100.0%) have expected count less than 5. The minimum expected count is .01.

From the Pearson chi-square test, χ^2 (726, N=92) = 1017.525, p = .000, which is greagter than 0.05. This indicates that there is a statistically significant relationship between the use of YouTube lectures and the academic performance of undergraduate students. Therefore, the null hypothesis (H_0) is rejected, and the alternative hypothesis is accepted.

However, caution must be exercised in interpreting this result. The large number of cells with expected counts less than 5 (100% of cells) suggests that the chi-square assumptions were violated, making the result less reliable. Furthermore, because YouTube usage was measured with ordinal (Likert scale) data, a correlation test (Spearman's rho) or a regression model would have been more appropriate to

determine predictive power. The current chi-square result shows a significant association but does not establish the strength or direction of the relationship.

Discussion of Findings

The findings of this study highlight several areas where Bayero University can strengthen the role of YouTube in supporting undergraduate learning. Since a majority of students (76.1%) reported that poor internet connectivity was the most significant barrier, the university should invest in upgrading the e-library's bandwidth, installing dedicated servers, and exploring offline access solutions to improve reliability and accessibility. Furthermore, although 90.2% of respondents indicated that YouTube lectures enhanced their understanding of complex concepts, the analysis revealed no significant relationship between usage and academic performance. This suggests that informal, unstructured use may not yield measurable academic gains. Therefore, lecturers should integrate curated and verified YouTube content into course syllabi, design assignments that encourage systematic engagement, and guide students toward academic channels aligned with their fields of study. The demographic imbalance observed in the study, with heavy representation from Computing and Engineering and limited participation from non-STEM and female students, also calls for targeted outreach. Faculties in the humanities, social sciences, and other underrepresented disciplines should be encouraged to adopt YouTube resources relevant to their courses to promote inclusive usage. Finally, given that unguided use of YouTube may not directly enhance grades, the university should organize regular digital literacy workshops to equip students with skills for evaluating content quality, taking effective notes, and applying video-based knowledge to academic tasks. Collectively, these measures will ensure that YouTube is not only accessible but also effectively utilized as a structured educational resource that supports academic success across all faculties.

Conclusion

This study investigated the relationship between accessing YouTube lectures through Bayero University's e-library and undergraduate students' academic performance. The statistical analysis revealed a significant association between YouTube usage and academic performance, suggesting that students who accessed YouTube lectures through the e-library were more likely to report improvements in their academic outcomes. These findings reinforce the value of YouTube as more than just a supplementary learning tool; it can meaningfully contribute to students' academic success when properly integrated into their study routines.

In line with the survey responses, students also perceived YouTube as particularly helpful for conceptual understanding, examination preparation, and self-directed learning. However, challenges such as unreliable internet connectivity and lack of structured integration into coursework limited its full academic potential.

Based on these results, the study concludes that YouTube is both a perceived and statistically supported academic resource. Universities should strengthen digital infrastructure, embed curated YouTube content into teaching strategies, and provide training to maximize its impact. Future research should adopt longitudinal and regression-based approaches to better establish the direction and strength of the relationship between YouTube usage and objective performance indicators such as GPA.

.RECOMMENDATIONS

This study examined the relationship between accessing YouTube lectures through Bayero University's e-library and undergraduate students' academic performance. The findings revealed that a majority of students frequently accessed YouTube lectures, with 90.2% reporting that such content enhanced their understanding of complex concepts and improved exam preparation. Despite these perceived benefits, the chi-square analysis showed no statistically significant relationship (p

> 0.05) between YouTube usage and academic performance, indicating that informal and unstructured use of YouTube does not necessarily translate into higher grades. Infrastructural challenges were also prominent, with 76.1% of respondents citing poor internet connectivity as the greatest obstacle to effective use. Additionally, the demographic profile of respondents showed a strong imbalance, with 93.5% male students and heavy representation from Computing and Engineering faculties, limiting the generalizability of the findings to other student groups.

In conclusion, while YouTube serves as a valuable supplementary learning tool that fosters self-directed learning and conceptual clarity, its academic potential remains underutilized without structured integration into teaching and adequate infrastructural support. Addressing connectivity challenges, promoting inclusive access across faculties, and embedding YouTube into course design are essential steps toward leveraging the platform for measurable academic success. Future research should employ longitudinal approaches and more balanced sampling to assess the long-term effects of YouTube on quantifiable outcomes such as GPA and retention rates.

Therefore Future studies should adopt a more balanced sampling approach to ensure adequate representation across gender and faculties. Targeted recruitment strategies, such as stratified random sampling, could be used to capture the perspectives of female students and those in humanities and social sciences. Addressing this demographic disparity would provide a more holistic understanding of how YouTube lectures influence learning outcomes across diverse student groups.

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